

Discovery Program 2006 Announcement of Opportunity Q&A

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<http://discovery.larc.nasa.gov/discovery>

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Other questions may be addressed to Michael New, Discovery Program Scientist,
michael.h.new@nasa.gov. Questions (which may be abridged for brevity and paraphrased to ensure anonymity) and answers will be posted at the above URL twice a week, sorted by category and entered into the change log below.

Categories of Questions

- Science (S)
- Technology (T)
- Management (M)
- Proposals (P)
- Launch Vehicles and Secondary Payloads (LV)
- International Participation (I)
- Missions of Opportunity (MO)
- Other (O)

Log of Questions

- January 6: P-1, P-2, P-3, P-4, LV-1
- January 17: MO-1
- January 19: P-5, P-6

Science

Technology

Management

Proposals

P-1 Is there a limit on the number of proposals that one organization can submit in response to the AO?

There is no limit on the number of proposals that can be submitted by a single institution.

P-2 If the PI chooses to change organizations after the selection of a proposal, can the award be transferred with him/her?

Awards made under an AO are contracts between NASA and the sponsoring organization. When a PI leaves the sponsoring organization under which they were awarded a contract, the sponsoring organization has the responsibility of providing a qualified replacement PI or recommending termination of the award. NASA has the right of approval for the recommended replacement PI. If the replacement is approved, the award will continue at the original organization. However, if NASA judges that participation of the original PI is critical to the project owing to their unique knowledge and capabilities, then NASA will seek the agreement of both the PI's original and new organizations to transfer the award (novation). If such an agreement is not possible, NASA may elect to terminate the original award at the PI's original organization and then implement a new award at the PI's new organization to complete the project.

P-3 What mission scenarios or science goals are included under the AO?

The science goals of the AO are described in section 2.1 of the AO. Please refer to it and the strategy documents referenced by it.

P-4 For some time I have been doing research in planetary science. I would like to participate in a proposal to this AO but I do not have a proposal team. Can I attend the preproposal conference?

The preproposal conference is open to all interested parties. Additionally, individuals and organizations interested in participating in proposal teams may post their contact information on the Discovery Teaming Interest webpage. This webpage is described in section 6.1.4 of the AO.

P-5 The October 1, 2013 cutoff imposed by the AO seems somewhat arbitrary and restrictive; only a fraction of Phase D costs would end up in FY 2014 were the October 1, 2013 cutoff to be extended, and significant expenditures will occur in both fiscal years regardless. Can the AO be amended to allow launch through December of 2013 to allow for the use of gravity assists from Earth and Venus?

No, the AO will not be amended to change the “launch by” date. If a later date is needed, please consider applying to the next Discovery AO.

P-6 The originally promised cost cap for this Discovery AO (per 2005 FBO notice) was \$450 M. The cap of \$425 M results in a reduction of available resources and science capability for new missions. Is there something that can be done to increase the cost cap?

The conference report (109-272) that accompanies the FY 2006 Appropriations Bill (H.R. 2862) states “The conferees have modified Senate

language regarding the Discovery program. The conferees set a cap of \$425,000,000 on all future Discovery missions beginning with the next announcement of opportunity.” The Discovery cost cap cannot, therefore, be raised.

Launch Vehicles and Secondary Payloads

LV-1 It is difficult to use the launch services cost data (found in the “ELV Launch Services Program Information Summary”) because it is put into terms of Earth circular orbit lift capability. Most Discovery missions are interplanetary with a C3 ranging from 1 to 50. KSC needs to be clearer about what vehicles these really are. As most Earth orbit launches don't make use of a solid upper stage and most interplanetary launches do require one, it makes translating the mass table extremely difficult.

Section 5.11.2 in the Discovery AO says, “The launch market is highly dynamic and NASA cannot assure which of the candidate launch capabilities will be available for launch in the next decade (launch date under this AO is NLT October 1, 2013). Accordingly, proposers should plan to be compatible with either vehicle family [Atlas or Delta] through spacecraft PDR as a specific launch vehicle will usually be assigned after that milestone.” Information to aid you in determining what lift ranges and mass margins can be expected for the available families of launch vehicles can be obtained from the planning tool described on page 2 of the “ELV Launch Services Program Information Summary” located in the Discovery Program Library. An updated version was posted on January 6, 2006.

International Participation

Missions of Opportunity

MO-1 The Announcement of Opportunity for the Discovery Program 2006 talks about Discovery Mission investigations to be launched before 1 Oct 2013. Can one also propose investigations using existing missions, for example the DI flyby spacecraft, to perform science during cruise phase?

Yes. Section 5.12.1 of the Discovery AO states: “Mission extensions and proposals for new science missions that utilize existing in-flight SMD spacecraft that have completed their prime flight missions (Deep Impact and Stardust) are also allowed in this opportunity.”

Other